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Remarks on the Prophylactic Treatment of cholera Infantum. By Joseph Parrish, M. D., one of the Surgeons to the Pennsylvania Hospital.

"The great mortality of cholera infantum renders it one of the most interesting diseases, which come under the notice of the physician. Its ravages among the infant population of our large cities, are too well known, and too strongly felt, to require any comment. No disease contributes so largely to swell our bills of mortality during its prevalence; and were it not restricted to the summer season, it would prove a greater scourge to the community than consumption itself.

"This mortality is owing less to our ignorance of the nature of the complaint, and the proper mode of treatment, than to the continued operation of the causes by which it is produced. I have often compared our endeavours to cure cholera infantum, while these causes remain, to an attempt to relieve inflammation in a part, while a thorn is sticking in the flesh. We may resort to bleeding and leeching; we may restrict our patient to the lowest diet, and the most perfect rest; we may employ all those remedies which are ordinarily best calculated to reduce inflammation: but so long as the thorn continues in the wound, our efforts will be fruitless. Thus it is with cholera. We may obviate the more violent symptoms; we may procure temporary relief; we may even flatter ourselves that a cure has been effected: but the original causes have not lost their power; an increased susceptibility to their operation remains; relapse upon relapse is experienced; and at last the little sufferer, worn out by the successive attacks, sinks beyond the reach of medicine and expires. Unhappily, the nature of the causes is such, that, in very many instances, their removal is exceedingly difficult, if not altogether impossible; and, under such circumstances, the patient who has once been severely affected, seldom recovers in the end. Hence it becomes of the greatest importance to prevent occurrence of the disease; and attention to the prophylactic treatment is no less essential than the adoption of curative measures. It is with the view of calling the attention of the profession to this subject, that I have been induced to offer the following observations.

"It is obvious, that, in the preventive treatment, two objects demand attention; first, to remove, as far as possible, the causes of the disease; and secondly, where their entire removal is not attainable, to fortify the system against their influence. On each of these, I shall offer a few observations.

"Excessive and continued heat is, perhaps, the most fruitful source of cholera. Thus we find, that the disease makes its first appearance in the commencement of the hot weather, increases and becomes more fatal with the rise of the thermometer, and declines with the return of cool weather in autumn. During its continuance, it may be observed to vary with every permanent change of temperature. A few very hot days in succession, in the 6th month, are sufficient to call it into action; and during the height of its prevalence, a spell of cold weather will diminish, if not suppress it. In the summer of 1806, which was remarkably cool and pleasant, there was very little of the disease; and generally in moderate summers, it is much less prevalent than in those of a contrary character.

"I believe that it is by a direct operation on the system, and not by the generation of miasmata, that heat proves so deleterious to the infant. In the country, where miasmata are most abundant, there is comparatively little cholera; for the heat of the sun is there moderated by the free circulation of the air; and the debilitating operation of the high temperature of the day is counteracted by the refreshing coolness of the morning and the evening. It is in the close air of cities, that the complaint flourishes with greatest vigour; and the most confined situations are the most favourable to its production. Let any one take a walk, in a summer's morning, through the thickly built lanes and alleys of Philadelphia. He will be struck with the appearance of the children, reclining their heads, as if exhausted, upon the breast of their mothers, with a pale and languid countenance, a cool and clammy skin, a shrunk neck, and other signs of debility, arising from their confinement, during the night, to close and hot apartments. It will readily be believed, that such places are the very hot beds of cholera.

"Heat, therefore, connected with confined air, being among the most frequent causes of the complaint, it is necessary, as far as possible, to counteract them. Should a strong predisposition to cholera be suspected, the best plan will be to send the child into the country during the summer. Both as a preventive and a remedy, country air is decidedly the most effectual, to which we can resort. But in most instances, it would be exceedingly inconvenient, sometimes impossible for mothers to leave their homes and occupations in the city; and, under such circumstances, it becomes necessary to substitute measures, which may produce, as nearly as possible, the same effects. To keep the child cool, and expose him to the fresh air, are the ends to be obtained. For this purpose, he should be carried frequently into the open squares, or beyond the suburbs of the city. I am in the habit of recommending to parents, whose circumstances will not allow of a removal from the city during the summer season, to make frequent excursions across the Delaware, and into the neighbouring woods of New Jersey. The refreshing effects of the air on the river are truly surprising. The brightened eye and animated countenance of the infant, give speedy proof of their favourable influence; and when labouring under the disease, even in its lowest stage, the little patient will often exhibit immediate signs of amendment.

"In the prevention of cholera, much may also be expected from a proper attention to the lodging of children. Many parents have a great dread of the night air; and exclude it from their chambers, as sedulously as if it were infected with poison. But, in guarding their children from taking cold, they expose them to a much greater danger. Observe their mode of treatment. The doors and windows are carefully closed: the child is placed in a feather bed, with his parents on each side, and almost smothered with the bed-cloths. Perhaps other children are lodged in the same apartment: and thus the delicate system of the infant is exposed to the debilitating influence of great heat and stagnant air, combined with the effluvia, which, in such a situation, must be abundantly generated. Simply to enter such a room in the morning, is almost sufficient to sicken a healthy individual; how much more injurious must be its effects upon the lodgers themselves. Examine, in the morning, a child who has passed the night thus confined. You will find him limber as a rag, exhausted by perspiration, wholly destitute of animation, without appetite, and on the very verge of cholera. I should recommend an entirely different plan of management. Instead of a feather bed, the child should be placed on a hard mattrass, or on blankets folded and laid upon the floor. The covering should be light, but comfortable. The doors and windows should be open; so that fresh air, that *pabulum vitæ*, without which health cannot be sustained, may be freely admitted. Thus treated, instead of the feeble and sickly appearance before mentioned, he will present a lively countenance, with all that activity of motion, and enjoyment of existence, which are natural to his age, and afford the surest criterion of vigorous health. Experience has fully convinced me of the great importance of attention to the lodging of children, as a prophylactic measure; and this renders me desirous of impressing upon the profession generally, the truth of my own conviction on the subject.

"With the same design of obviating the injurious effects of a high temperature upon the infantile system, I advise frequent ablutions with cool water, and its frequent employment as a beverage. Infants, unable to make their wants known, often suffer exceedingly from the inability of their attendants to understand them. During the heat of summer, the increased evaporation from their surface is necessarily productive of increased thirst, which, if unsatisfied, renders them uneasy and restless. To quiet them, the breast or bottle is offered. Aliment is thus given, where drink only was required; and the stomach, overloaded and oppressed, is apt to become irritable, and is thus brought into a condition most favourable to the occurreuce of cholera. By attention to the peculiar language of infants, expressed not by words, but by signs, I have often been able to detect their wants; and, in many instances, have afforded the most decided relief, by simply giving them a little cold water for drink. From the dread which some individuals have for cool air and cold water, it would seem that they were considered rather as destructive poisons than absolute necessaries. I have no fear of either, when judiciously employed; and as prophylactics in cholera, I do not think their place can be supplied.

"But heat is not the only cause of this complaint. Dentition is well known both to predispose the system to its attack, and, after it has occurred, to increase its violence, and diminish the chances of recovery. In the employment, therefore, of preventive measures, it is highly necessary to attend to the state of the gums, and to remove or to counteract this source of irritation. If at all swelled or painful, they should be lanced freely, and the operation should be repeated as often as their inflammatory condition may demand. In severe cases, much good may be expected from the application of blisters behind the ears. The irritation thus receives an external direction, and the stomach and bowels are in less danger of an attack. I was led to this practice, by observing that the eruption, which, during dentition, is apt to make its appearance behind the ears, often proves a most salutary effort of nature; and that, while it continues, the infant generally enjoys an exemption from those dangerous disorders, incident to this critical period of life. To imitate nature as closely as possible, the discharge from the blistered surface should be maintained for some time by stimulating dressings. I have witnessed the most beneficial effects from the practice, and can strongly recommend it to the attention of the profession.

"At the same time that we endeavour to remove or diminish the causes of cholera, we should not neglect to put the system of the child in such a condition, as may enable it most effectually to resist their operation. As cholera is a disease of irritation, originating generally in a debilitated state of the alimentary canal, I believe this end may be most easily attained, by preserving the natural tone of the digestive organs. For this purpose, all flatulent and indigestible food should be carefully avoided. During the first year, the mother's milk is in general, the most appropriate nutriment. When the stomach of the infant is very delicate, the diet of the mother should be strictly regulated; and, in all cases, it would be advisable for her to avoid articles of a flatulent nature. While the child is still at the breast, if a predisposition to cholera be suspected, I would recommend the occasional use of nutritious animal juices.

The sucking of small pieces of salt meat, as ham or dried beef for example, will sometimes be found productive of advantage. After weaning, animal food should always enter into the diet of the child. Many parents, fearing to render their children gross and unhealthy, restrict them altogether to vegetable aliment; and thus, by weakening the powers of digestion, prepare the way for that very result which they are most anxious to avoid.

"With the same view of giving tone to the stomach, aromatics should be used habitually during the summer in those cases, in which there is reason to apprehend the occurrence of cholera. While they produce a cordial impression on the stomach, and invigorate generally the digestive powers, they are liable to none of those objections which may be urged against the employment of the narcotic stimulants. Indeed, nature herself seems to have pointed them out as prophylactic against the diseases of hot weather. Our most powerful and valuable spices are the products of warm countries. Cinnamon, ginger, pepper, the clove, the nutmeg, are to be found only in tropical climates. In this arrangement, we see the hand of a beneficent Creator, who has provided, that, by the same high temperature, which renders the equatorial regions so fruitful in cholera, and other disorders of the bowels, the growth of those plants should be promoted, which are best calculated to invigorate the alimentary canal, and to fortify it against the inroads of disease. Facts are not wanting to prove the efficacy of spices in preventing intestinal complaints.—We are informed by DEWAR, in his treatise on the Diarrhœa and Dysentery, by which the British army in Egypt was attacked, that among the Mamalukes of that country, it was a universal practice, when they apprehended the approach of these disorders, to make use of cinnamon or ginger, with the almost uniform effect of averting them; and where the same practice was followed by the British soldiers, equal advantages were experienced. In the French army, so highly was the prophylactic power of the aromatics estimated, that every soldier was provided with a box of spices, which he was directed to use freely with his diet of fruit and melons.

"When attending surgeon of the Alms-house hospital in this city, I had occasion freequently to prescribe in a syphilitic ward, which being situated directly under the roof, in a large garret, was liable, in the summer season, to become very much heated.—As the patients were numerous, and the windows insufficient to admit of proper ventilation, the air became much contaminated; and the consequence was, that bowel complaints were very frequent and troublesome I have often entered the ward on a summer's morning, and found almost every patient affected more or less with diarrhœa or cholera. It occurs to me, that the free use of some of the aromatics might be found serviceable in preventing the occurrence of these complaints. I accordingly directed, that every individual in the ward should drink a portion of strong ginger tea daily. I also ordered, that salt meat should be used twice in the week. By the steady pursuit of this plan, a very considerable change for the better was effected.

"The employment of aromatics as prophylactics is not less beneficial in children than in adults. I would not, however, advise, that they should be given indiscriminately to all children, during the summer. It is only to those cases, in which a predisposition to cholera infantum exists, that I consider them peculiarly applicable; and here I believe they are capable of producing much good.

Before dismissing the subject of the paper, I will simply remark, in addition to what has been already said, that the occasional use of the cold bath, by the vigour it imparts to the system generally, and through it to the digestive organs, will often be found an excellent preservative against the summer complaint of children.

"In this short account of the preventive treatment of cholera infantum, I have been less anxious to give a dissertation, embracing all that might be said on the subject, than to communicate those particular measures, which, according to my own experience, I have found most effectual. I will conclude the paper by the relation of a case, in which a strong predisposition to the disease was successfully counteracted. It will be proper, however, to premise, that the treatment of this case is by no means held out as an example to be generally followed with every infant, which may possibly become the subject of cholera. It is applicable in all its details only to those, in which, as in the present instance, there is every reason to apprehend, that the only alternative is between almost certain death, and the most careful prophylactic treatment.

" A gentleman of this city, whose wife had arrived at a period of life, when she could not expect to be the mother of many more children, consulted me respecting an infant daughter, their only surviving child.—I was informed, that they had already lost eight children, all of whom, with one exception, had died of cholera. It may readily be imagined that every feeling of parental anxiety was excited for their babe; and that no degree of attention on their part was considered too great, which might contribute to its preservation. It was placed under my care, not to be cured, but that I might, if possible, devise some plan of management, which would avert the disease they had so much reason to apprehend. I felt the responsibility of the trust, and endeavoured to fulfil it to the best of my ability. Every opportunity which I could desire was afforded me; for the infant, from its birth, was submitted to my direction; and both the disposition and ability existed, on the part of the parents, to carry implicitly into effect, every measure which I might recommend.

"As the mother was unable to furnish sufficient nourishment, the first step was to provide a healthy wet-nurse, who might be willing to submit to the necessary regulations in respect to diet.

"I believed the children of these parents to possess a constitutional weakness in the alimentary canal; and on inquiry, I was told, that they had been kept upon a vapid diet, under the impression that it would contribute to their health. In the present case, therefore, the principal object was to communicate strength to the stomach and bowels. With this view, the child was accustomed, from an early period of infancy, to a generous diet. When very young, portions of ginger tea were given to it daily; and as soon as it was old enough to suck the juice of meat, it was encouraged to do so. The nurse, during the warm season, was kept upon a nutritious diet, consisting principally of animal food, with the occasional use of ginger tea; and every description of re cent fruit and fresh vegetable food was forbidden. Under this management, the first summer was passed without any symptom of the disease; but I looked forward to the second with no little anxiety, when the child would have to struggle with the irritation arising from dentition.

The same plan was continued during the second summer, and still more rigidly enforced. The child was now old enough to take animal food freely in addition to the breast. It was allowed as much salt fish, ham, beef-steak, essence of beef, &c. as it desired; ginger tea was given daily; a little sound old port wine was occasionally directed; and both the child and the nurse were restricted from every species of flatulent and indigestible aliment. So anxious, indeed, were the parents, and so careful to carry my directions into full effect, that they allowed no forbidden article of food to enter the house, and denied themselves their wonted comforts, lest possibly their child might be injured.

"The gums were carefully attended to, and lanced whenever the operation appeared to be requisite.—All those measures, which I have before mentioned as serviceable in obviating the effects of great heat, so far as they were applicable to the case, were adopted. The second summer was spent wholly in the country.

"Very little medicine was required, and none was administered except of the mildest description.—Frequently, when summoned to visit the babe, I have found the mother trembling with fear, and anxious that something might be done; and often, under such circumstances, have I begged it off from a dose of physic, having determined to avoid every thing of the kind, unless real necessity should demand it.

"By a strict adherence to the plan above detailed, the period of dentition was passed in safety; and it is with heartfelt pleasure I can say, that no symptom of cholera afterwards made its appearance.

"*Extirpation of the Parotid Gland.*—The best surgical writers have condemned this operation, if not as absolutely impracticable, nevertheless, as too dangerous to be ever attempted. Successful cases have however been reported, and Mr. A. COOPER, in a letter to the operator in the following case, avers, that he twice removed the parotid gland in one year. Mr. KIRBY, late president of the Royal College of Surgeons in Ireland, in a work published in 1825 at Dublin, on hæmorrhoidal excrescences, has given the details of a diseased parotid, and of the operation for its removal. We condense from Johnson's Review for April, 1826.

"The patient was a poor female, aged 40, who had a tumor extending from above the zygoma downwards on the neck, two inches below the angle of the jaw, stretching as far forwards as the anterior edge of the masseter muscle, forcing the ear backwards, and raising it outwards from its natural position. Above the surface it was about the size of a goose egg; immoveable; painful when handled; irregular on the surface, and of a deep livid colour over the prominent points. Pains of a lancinating character, extended over the head and neck, producing sickness and want of sleep.

"The operation was performed chiefly by the fingers and the handle of the knife, after dividing the integuments by a crucial incision. The branches of the portio dura were of course divided, and great embarrassment arose from a copious hæmorrhage, caused by the bursting of the tumor, while Mr. K. was rooting it out from between the pterygoid muscles. The bleeding was restrained by the finger of an assistant, and the complete extirpation of the diseased gland was effected. Mr. KIRBY says, the space between the pterygoid muscles was avoided—the auditory tube was fully exposed—the articular capsule of the jaw was brought into view—the finger could trace the length of the styloid process, and on sponging the wound of its blood, it could be seen by those who surrounded the chair. The hæmorrhage was restrained by a sponge firmly lodged at the bottom of the wound, covered by compress of lint, and the whole secured by a double-headed roller.

"The patient was much exhausted, slept tolerably well the next night, complaining of thirst and inability to swallow. On the 2nd day, inflammation, swelling, and fever followed—erysipelas appeared on the neck—patient lethargic—pulse small and frequent. Fourth day, suppuration—symptoms improving—no relapse. The patient completely recovered, without any regeneration of the tumour.

"According to Mr. MEYRANX, the needles made use of for acupunctuation at La Pitie, are of steel, but rendered ductile by heating them in the flame of a candle, and then suffering them to cool slowly.

M. BOULARD of Orleans, has detailed the results of two operations of acupuncturation. In the first case, the patient was affected with a violent rheumatic inflammation of the upper part of the left shoulder.—The needles were applied at three different times, and the patient recovered in twenty-two days from the first operation. This patient was attacked, on the first day of the operation, with a complete syncope. In the second case, the needles were had recourse to for a pain in the right hypochondriac region, of long standing. After repeating the operation several times, the pain disappeared, but was succeeded by epileptic attacks, which continued to appear every four or five days. Mr. BOULARD generally applies dry cups before resorting to the needles.—*Annales de la Med. Physiologique.*

CINCINNATI;
WEDNESDAY, AUGUST 2, 1826.

The highest degree of heat from the 19th of the month to the 31st, was on the 21st at 2 P. M. when the mercury stood at 91. The lowest fall was on the 25th, at 6 A. M. when it was stationary at 57; the mean heat 79; range 34. The mean heat for the month 75 1-2: the greatest rise 92: and lowest fall 57; the range 35.

The health of the city, for the month of July, was tolerably good. The diseases, were cholera, mild diarrhœa, a few cases of bilious fever, and cholera infantum: the latter most common, and invariably fatal. The number of deaths during the month;—adults 19—children 48: thirty-two of the latter died with cholera infantum.

Total of deaths during the month, 67.

MEDICAL BOTANY.

A description of the WESTERN MEDICAL PLANTS, *including some notice of their Medical virtues; to be selected and described at, or near, the time of their flowering, and continued through the season of Botanical investigation;*

By J. LOCKE, M. D.

Author of the Outlines of Botany,
And Principal of the Cincinnati Female Academy.

Sanguinaria Canadensis. *Puccoon; Bloodroot.*

The blood-root, although commonly known, may be confounded with the *Jeffersonia* or *Podophyllum*, which it resembles; and which, in this vicinity, it accompanies, in its place of growth and time of flowering. It is, however, sufficiently distinguished from these by its red juice. Each plant has only one leaf and one flower, whose stalks are separated from each other to the root. Leaves in numerous lobes, veiny underneath, and wrinkled. Flowers single, erect; calyx 2-leaved, falling as soon as the flower expands; petals eight, spreading. "Root fleshy and abrupt, containing an orange-coloured juice." Blooms in April. Herbage annual; root perennial.

Class XIII. Polyandria. Order I. Monogynia.

Natural Order. Papaveraceæ.

CHARACTER OF THE GENUS. Calyx 2-leaved; corolla 8-petalled; capsule 2-valved, many seeded.

Observation. The only species of its genus.

"MEDICAL USES. Taken internally, in moderate doses, it increases the excitement of the sanguiferous system, augments the action of the lymphatics of the viscera, excites appetite, and promotes digestion. In large doses, it nauseates, diminishes sanguiferous action, and still further increased, it vomits. In improper quantities it vomits with much violence, produces heart-burn, faintness, dizziness, diminished vision, and great prostration of strength.—Snuffed into the nose it excites sneezing, and applied externally, in diseases of the skin, or to the surface of ulcers, it irritates, promotes absorption, and changes action. It may therefore be considered as tonic, deobstruent, emetic, narcotic, sternutatory, *antipsoraic*, and escharotic. By suitable management and qualification it may be made to produce the most useful effects of squill and senega, without the tendency to vomit and purge; of foxglove, without danger of prostrating the powers of life; ammoniacum and guaiacum, without their occasional irritation, and of the mineral tonics without their slowness. From a careful examination of what written testimony appears to have been founded on personal observation, and from pretty extensive experience of the effects of this article, in numerous forms and in various stages of disease I am of opinion that when taken in doses as large as the stomach will quietly retain, and under circumstances favourable to its operation, its modus operandi is most conspicuous in allaying morbid irritability of the heart and arteries, thereby diminishing the frequency of the pulse, and in increasing bronchial and cutaneous secretion. It appears not to weaken the force of the circulation, nor, like most narcotic remedies, to depress the energies of the system; on the contrary, its general influence in this respect is unquestionably tonic. Its peculiar and remedial excellece, is in subduing phlegmasial diseases of the respiratory organs, after they have arrived at that period in their progress, when depletion with the lancet can be carried no farther: when inflammatory excitement is superseded by excesive irritability,—manifested by restlessness, a rapid and quick pulse, dryness of the surface, scanty secretions, and flushed cheeks;—an irritability which is always increased rather than diminished by continuing depletion. Such appears to me to be the most suitable condition of the blood-vessels for the beneficial exhibition of *sanguinaria*.—Under such circumstances, I have witnesed the happiest effects from it in severe and protracted forms of almost every species of cynanche, in pneumonia, per tussis, and particularly in incipient phthisis pulmonalis. It may, indeed, sometimes advantageously accompany the use of the lancet, but only when the violence of inflammatory action has been mitigated, and bleeding is occasionally required to moderate or prevent excitement, as is not unfrequently the case in pneumonia, threatening to terminate in consumption. I have never seen disease, of any character, more obviously, promptly, and effectually subdued, by the agency of medicine, than I have seen incipient phthisis pulmonalis by Blood- root alone. After despairing of relief from other means, and when the disease appeared to be rapidly progressing to a fatal termination, I have known the pulse, which had not for many weeks been fewer than one hundred and twelve in a minute, permanenly diminished, (after the use of the Blood-root for twenty-four hours,) to eighty beats, the skin that was obstinately dry, become moist, a most incessant and distressing cough, attended with scanty expectoration of blood and frothy mucous, allayed, and the patient that was so far exhausted as to be unable to walk or stand, restored in four or five weeks to perfect health. In the sub-acute stage of inflammatory diseases which I have attempted to point out, and which is not the less dangerous and troublesome because it is sub-acute, the Blood-root appears to me to be much more certain and safe in its operation than *colchicum* or *digitalis*. It was probably in this form of the disease that it was so successfully employed by Dr. Zolickoffer in inflammatory rheumatism. He gave it after copious depletion by bleeding and purging.

"In phlegmasial diseases of the typhoid or asthenic type, such as cynanche maligna, and pneumonia typhoides, the Blood-root is a medicine of inestimable, if not unequalled, efficacy. For whether it be given as an emetic, or expectorant and sudorific, it has not, as was observed above, the tendency to weaken the powers of the system, but, on the contrary, to invigorate and strengthen them. It may sometimes be advantageously combined with calomel, or calomel and opium. When the Blood-root is taken in sufficient quantity to excite vomiting, it most commonly operates quickly and promptly. I have given it as an emetic with much benefit in paroxysms of asthma. It has been highly recommended in various diseases which I have not mentioned, such as amenorrhœa, hydrothorax and jaundice; and as an escharotic in soft polypi, and other fleshy excrescences, but as I wished to speak confidently of its effects, I have only made such remarks as are justified by my own experience.

MEDICINAL PREPARATIONS. It may be administered in substance, in the form of pills, or mixed with syrup or treacle; in infusion or in tincture.

DOSES. Gr. x to gr. xii of the powder will most commonly exeite vomiting. from gr. iii to gr. v may be given without often producing nausea. ℥ss to ℥j of the infusion prepared by pouring oj of boiling water upon ℥j of the coarsely powdered root; ℥ss to ℥j of tincture. The tincture may be made by digesting ℥ij of the root in oj of proof spirit, or in wine. When I have had occasion to prescribe the Blood-root for a considerable length of time to the same patient. I have best secured its effects by frequently changing the preparation. It is a circumstance which greatly lessens the value of Blood-root, says Dr. Tully, that its powers are very much impaired by age. The recently dried root possesses the greatest activity, but in the course of a few months, its virtues are diminished, as much as one half, and perhaps more. The same is true of the tincture, and the wine, but the latter retains its efficacy longest. The dose, therefore, must be in some measure regulated by the age of the preparation.—*Paris Pharmaco.*

THE MORAL AND PHYSICAL INFLUENCE OF THE MORNING AND EVENING AIR ON MAN.

The old maxim, "*Early to bed, and early to rise, will make a man healthy, wealthy, and wise,*" we consider, on the whole, as good; though the manner in which it is understood, and the precepts that construction inculcates, we are in part compelled to dissent from, especially the influence of the night air of southern climates. It may answer very well for those persons who live beyond the 40th degree of North latitude, but south of that the objections increase with every degree of latitude.

The rules that we would lay down, for the government of recent emigrants, to southern climates, and one that would suit every class of men residing in warm countries, would be, to avoid an exposure to the air, after nine o'clock at night, and before eight o'clock in the morning; to sleep in a large room, in the second or third story of a house situated upon the highest site in the city: in very warm night the windows of the room might be raised, but cloth curtains unfolded, and kept down by weights attached to the bottom of them. But few persons should sleep in the same room, in very warm weather, unless the room is large, and the ceiling high, and even then it is better, there should be but few in the room.

The objections to the evening and morning air, are, its humidity, low temperature, and its supposed accompaniment *marsh miasmata*. When the atmosphere is cool and damp, there is no necessity for opening the windows of a sleeping chamber; consequently the latter is the principal one imposing itself upon our consideration; and in order to understand its nature, and guard against its influence, we will first investigate the law by which the malaria is apparently governed.

Malaria, is a cause of disease which is supposed to exist at certain times, and under certain circumstances in the atmosphere: it has never been detected, and is only known by certain laws, by which it is governed in its formation, motion, and effect on the human system. Heat, moisture, and the decomposition of organic matter, are necessary to its production; hence it is most abundant in those sections of country, where those agents exist in the greatest abundance—thus united; river bottoms subject to inundations, marshy grounds, and extensive level countries, situated in warm climates, are the most prolific sources of this general cause of disease.

Heat, and an open space of country are required, to secure its movements and general diffusion through the country surrounding those hot-beds of its generation; which circumstances enable us to prove why it is so important to avoid the evening and morning air. As we before stated, heat is concerned both in its production and motion: it raises it from the surface of the earth, and diffuses it through the upper region of atmosphere. As soon as the air becomes heated in the morning, until it becomes cool in the evening, there is but little danger from malarious influence; the caloric raises it entirely above us, leaving the stratum of air, in which we are immersed, pure. In the evening, so soon as the sun withdraws its heat from the atmosphere, the malaria becomes condensed, its specific gravity increased, and it falls to the earth. During its descent, if we are exposed to the atmosphere without, we are compelled to breath this miasma in its condensed form. It finally settles close to the surface of the earth, and into pits and ravines, where it remains until the morning sun appears, when the atmosphere, when it again ascends to the upper regions, and remains harmless until night.

The lungs receive, in each inspiration, a given

quantity of atmosphere, and to insure life and health a given portion of that volume of air must be oxygen, which is consumed or appropriated in every inspiration. The atmosphere in a confined room, if cold, will support life much longer than the same quantity would, if highly heated. Caloric rarifies the atmosphere, consequently there is much less oxygen in the same quantity taken into the lungs at each inspiration, than there would be in the absence of caloric, when the air would be, of course, very much condensed. We have stated above, that the oxygen of each volume of atmosphere taken into the lungs was consumed; now if the room was perfectly tight, and a number of persons were confined in that room, they would, even in cold weather, eventually consume the vital principle of the air, and consequently all die; but this result would obtain much earlier in very warm weather. There is no quality of atmosphere that will destroy animal life sooner than a deficiency or absence of this vital principle; therefore there would be less danger in admitting into a room, almost any quality of atmosphere from without, than there would be in confining the air within the room, until the oxygen was consumed. Instances of sudden death, from this cause, are frequuently seen, when the consumption, by respiration, of the oxygen is assisted, by the burning of charcoal in kettles, placed in or near the centre of close and newly finished rooms; this principle of the atmosphere being the immediate supporter of both respiration and combustion. Immediate death is the consequence of an entire absence of oxygen; while debility, languor, and a predisposition to disease, is the effect of a continued deficiency of that atmospheric principle. This fact being known and admitted, ought to go far in modifying, at least, that universal practice, of sleeping with whole families in closely confined chambers.

(*To be continued.*)

FOSSIL BONES.

There is now exhibiting, in this city, a collection of *fossil bones*, which surpass in size any thing we ever saw of the animal kind. We do not pretend to say positively to what class, order, genera, or species, they belong, but for the present must content ourselves by giving their dimensions, and a few of their characteristic appearances. There are twenty-four or five pieces, consisting of one immensely large bone, which probably belonged to the cranium; fifteen vertebræ; two whole ribs and a fragment of another; one femur; two bones corresponding to the tibia in man; and a number of fragments, the characters of which are destroyed by decomposition. The length of the largest bone, which we consider as belonging to the head, is 19 feet 6 inches, its circumference 7 feet 3 inches, the greatest width 3 feet 3 inches, and weighs 1200 pounds. The anterio-posterior diameter of the vertebræ is one foot, the lateral diameter one foot three inches. The anterio-posterior diameter of the hole, for the transmission of the spinal marrow is six inches, the lateral diameter eight inches. The length from the extremity of one transverse process of the vertebræ to the extremity of the other, is three feet one inch. The length of the spinal process, from the body of the vertebræ, is two feet five inches; the length of the vertebræ one foot. The diameter of the intervertebral foramina, for the transmission of the intervertebral artery, is four inches; the weight of the whole vertebræ seventy-five pounds. The circumference of the head of the femur is two feet five inches, the length two feet. The length of the ribs is nine feet, the circumference one foot two inches. The length of the tibia one foot six inches, the circumference one foot eight inches. There are four different kinds of vertebræ, each bearing a resemblance to the different vertebræ in man: one has the long acqualine spinous process resembling, in that particular, the dorsal vertebræ in man; a second has the short thick spinous process, standing out parallel to the body of the bone, with a large abrupt termination, corresponding with the lumbar vertebræ in man; a third has the intervertebral foramina passing through the transverse processes, answering to the cervical vertebræ; whilst a fourth is destitute of processes, bearing little resemblance to any of the human vertebræ.

The femur is remarkably short for its circumference. The head and large trochanter are well marked, and resemble, very obviously, that of man; but the body of the bone is irregular in its shape, having an elevated tubercle on the middle of the bone, upon its anterior side, in which were inserted muscles that passed, no doubt, over the joint, and were inserted into the tuberosity of the tibia; which arrangement superseded the necessity of a patella; that bone being absent, originally. The condyles are not well marked; but the lower extremity of the bone presents two equal surfaces, divided laterally by a spine extending across the bone, leaving an anterior and posterior oblique, articulating, surface. The tibia is short, but corresponds in size with the femur; its great tubercle is well marked, but the malleolus process is wanting. The ribs are, for a short distance, round, but in other respects, resemble the ribs of the mammalia; they are a little twisted, but no groove for the intercostal artery. The distance of the tubercle from the head of the rib is not, comparatively, so great as in man, still these two articulating surfaces are very conspicuous. The large cranial bone we can make little of; in our own opinion it resembles the os temporum, with its mastoid and styloid processes, and the meatus auditorus; but we will assign its description to some older and more experienced naturalist. There is one mark by which we can form some idea of the size of the animal, when compared with man. The intervertebral artery in man is about one twelfth of an inch in diameter, and the aorta probably one inch, which would make the intervertebral one twelfth the aorta's size. The intervertebral artery in this animal is four inches diameter; now if the same difference existed between the intervertebral artery and the aorta, in this animal, than it does in man, the size of the aorta in the former would be twelve times four inches, which would give us an aorta, of immense size. We are inclined to believe that there are, in the collection, the bones of two animals; one may have been an aquatic, but the other, we are confident, was an amphibious animal. We are inclined to this opinion from the shortness of the bones of the leg, and the peculiar motion necessary to the formation of its joints. If it should be found to bear a relation to the genus *lacerta*, its probable length may be ascertained. The *L. crocodilus* and *L. alligator* have sixty two vertebræ; the vertebræ of this animal are one foot in length, which would give us sixty-two feet Then there is the intervertebral, ligamento—cartilaginous substances, which we calculate at one half the length of the collected vertebræ, which would give us thirty-one feet more; that, added to sixty-two feet would make ninety-three feet. The head of this genus is generally equal to the body, which is one half the length of the tail, that would add twenty-eight feet more, and give us an animal one hundred and twenty-one feet in length. The two ribs, taken together, are eighteen feet; then there is the breadth of the vertebræ, the sternum, the cartilage, and a portion that is destroyed at the head of the ribs, which may be calculated at about five feet more; these clothed with the muscles, fat, and skin, would give us a circumference of between thirty and thirty five feet; then add the legs, the bones of which measure, in circumference, two feet, and only about four or five feet in length; and I think we should have an animal corresponding, in appearance, to the alligator.

These bones were dug out of a marshy soil, from one to nine feet below the surface, (about one year ago) sixty miles below New Orleans, and three miles from the Mississippi river. They were all found within a few rods of each other; and, from the proprietor, we learn that the search is successfully continued; which will probably result in a discovery of the bones of the entire animal.

"*Proposed method for preparing Protoxide of Mercury by precipitation, for Medical Employment.*—Mr. Thomas Evans has published some observations on this subject, and justly remarks, that the blue pill, mercurial ointment, and other mercurial preparations, are not uniform compounds, but contain variable proportions of the real protoxide, and uncombined mercury. Some blue pill, which had been carefully prepared by Mr. E. by the usual process of trituration, was found to contain on analysis 20 per cent of unoxidized mercury; and the blue mass from Apothecaries' Hall, London, furnished about the same proportion.

"As it is obviously a desideratum to procure preparations of protoxide of mercury of uniform strength, Mr. Evans has been led to seek a process, by which to obtain this oxide in a pure state. After repeated experiments, he has pitched upon the following formula: Dissolve four ounces of caustic hydrate of potassa in a pound of water, and to the clear solution, decanted from any impurities, add four ounces of calomel, and shake the mixture frequently. Pour off the liquid, and wash the precipitate formed with water, and then dry it at a gentle heat.

"In regard to the medical efficacy of the protoxide obtained in this way, Mr. Evans reports the following to be the results obtained by Dr. Coates, at whose suggestion the article was prepared. As a substitute for calomel, it is more apt to vomit and purge, two grain doses operating several times. As an alterative, it was found incomparably more efficacious than the blue pill, being more certain and regular in its operation. Dr. C. thinks, that one-fourth of a grain of the precipitated protoxide, as prepared by Mr. Evans, is equal to three or four grains of the blue mass.—*Journ. of the Philad. Col. of Pharm, May* 1826.

"The method here proposed for obtaining the black oxide of mercury by Mr. Evans, was first suggested and put in practice by Mr. Phillips. See his Experimental Examination of the last edition of the Pharmacopœia Londinensis, London, 1811, page 114. His words are, When a solution of potash is employed, the several inconveniences attendant upon the use of lime-water are avoided, and a blackish coloured protoxide is obtained without heating the solution.—As potash is much more soluble than lime, it is scarcely necessary to employ one-tenth part of the quantity of water; this not only renders the process more convenient, but the quantity of air contained in the water being less, very little of the oxide, perhaps none of it, is converted into protoxide. See also the experiments, and observations of Mr. Donovan, on Mercurial Ointment, &c. published in the Medical Journals, several years ago.

"*Artificial Joint cured by caustic.*—Dr. J. Rhea Barton, has applied the caustic potash to the extremities of the fragments of a broken tibia, after an artificial joint had fully formed. Exfoliation was produced, followed by bony union. In three months, the patient recovered.

"Dr. B. alludes to other cases, by Mr. White of Manchester, and Mr. Henry Cline, thus treated with success; to two instances, in which the practice failed in the hands of Mr. Earle; and finally, to one case by Mr. A. Cooper, the result of which he has not learnt. He does not recommend the operation, as usually preferable to the *seton*, for which, the profession is indebted to Dr. Physick; but as an additional expedient, when other means fail.—*Med. Record. April*, 1826.

"*Scrophula.*—Dr. Wetz recommends the employment of caustic potassa in scrophula. He dissolves x grs. of caustic potassa in one ounce of orange peel water, and gives xij to xx gtt. four times a day, in a cup of broth. A solution of caustic potassa in six ounces of distilled water, is applied as a wash to the ulcers.

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